

REMARKS/ARGUMENTS

Claims 1-4, 6-12, 14-17 and 37 are currently pending in the application. Claims 1-4, 6-12, 14-17 and 37 were rejected in the Office Action mailed March 19, 2008 (hereinafter referred to as "Office Action"). The Office Action rejections include:

1. Claims 1-4, 6, 8, 9, and 15-17 under 35 U.S.C. § 102(b) as being anticipated by Baracchini, *et al.* (US Patent number 5,801,154) ("Baracchini").
2. Claims 1-4, 6, 7, 9, and 14-16 under 35 U.S.C. § 102(b) as being anticipated by Agrawal, *et al.* (WO 94/01550) ("Agrawal").
3. Claims 1-7, 10-12 and 37 under 35 U.S.C. § 102(b) as being anticipated by Parrish, *et al.* (Molecular Cell 2000) ("Parrish").

Applicants submit that the amendments to the claims are fully supported throughout the Specification as originally filed and particularly in paragraph [0031] of the Application (or paragraph [0046] of the published Application). In view of the following remarks and amendments, Applicants respectfully request timely issuance of an Advisory Action and/or a Notice of Allowance in this Application.

Claim Rejections under 35 U.S.C. § 102

The Office Action rejects claims 1-4, 6, 8, 9, and 15-17 as being anticipated by Baracchini; claims 1-4, 6, 7, 9, and 14-16 as being anticipated by Agrawal; and claims 1-7, 10-12 and 37 as being anticipated by Parrish. Individually, Baracchini, Agrawal and Parrish fail to anticipate the present invention.

For anticipation, a single reference must identically disclose every element of the claimed invention. *Corning Glass Works v. Sumitomo Electric*, 9 USPQ 2d 1962, 1965 (Fed. Cir.1989). A reference that excludes a claimed element, **no matter how insubstantial or obvious**, is enough to negate anticipation. *Connell v. Sears, Roebuck & Co.*, 220 USPQ 193, 198 (Fed. Cir.1983). Applicant respectfully submits that the claims of the present invention are not anticipated by Baracchini, Agrawal, or Parrish and are therefore allowable under 35 U.S.C. § 102(b) for the reasons stated below.

Claims 1-17

The Office Action rejected claims under 35 U.S.C. § 102(b) using Baracchini, Agrawal and Parrish. However, Baracchini, Agrawal and Parrish each fail to disclose a partially thio-modified aptamer where all of the non-adjacent dA, dC, dG, or dT phosphate sites of the modified nucleotide aptamer or substantially all non-adjacent phosphate sites of the modified nucleotide aptamer are

replaced with phosphorothioate groups. Baracchini, Agrawal and Parrish each fail to disclose thioaptamers made by adding bases to an oligonucleotide wherein a portion of the phosphate groups are thiophosphate-modified nucleotides, and where no more than three of the four different nucleotides are substituted on the 5'-phosphate positions by 5'-thiophosphates in each synthesized oligonucleotide are thiophosphate-modified nucleotides.

Specifically, Baracchini, Agrawal and Parrish each fail to disclose, no more than three adjacent phosphate sites of the modified nucleotide aptamer that are replaced with phosphorodithioate groups or that the thioaptamers may be obtained by adding bases enzymatically using a mix of four nucleotides, wherein one or more of the nucleotides are a mix of unmodified and thiophosphate-modified nucleotides, to form a partially thiophosphate-modified thioaptamer library.

Applicants respectfully submit that claim 2-4, 6-12, and 14-17 further distinguish over the cited references and depend from claim 1, which is allowable for the reasons stated above. Therefore, claims 2-4, 6-12, and 14-17 are allowable under 35 U.S.C. § 102(b). Accordingly, Applicant respectfully requests that the rejection of claims 2-4, 6-12, and 14-17 be withdrawn.

Applicants respectfully submit that claim 1-17 as amended is not anticipated by Baracchini, Agrawal or Parrish because each of the references fail to disclose each and every limitation of the present invention; and as such, none of the references can anticipate the present invention. Applicants respectfully request withdrawal of the rejection of the claims under 35 U.S.C. § 102(b).

Claim 37

In addition, claim 37 is also rejected under 35 U.S.C. § 102(b) as being anticipated by Parrish. Parrish fails to disclose a partially thio-modified aptamer where all of the non-adjacent or substantially all dA, dC, dG, or dT phosphates of the modified nucleotide aptamer are replaced with phosphorothioate groups.

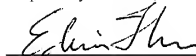
As described above and incorporated herein, Parrish failed to teach a partially thio-modified aptamer where all of the non-adjacent dA, dC, dG, or dT phosphates of the modified nucleotide aptamer are replaced with phosphorothioates; or substantially all non-adjacent phosphates of the modified nucleotide aptamer are replaced with phosphorothioate groups. As such, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 102(b).

Conclusion

In light of the remarks and arguments presented above, Applicants respectfully submit that the claims in the Application are in condition for allowance. Favorable consideration and allowance of the pending claims is therefore respectfully requested. If the Examiner has any questions or comments, or if further clarification is required, it is requested that the Examiner contact the undersigned at the telephone number listed below.

Dated: July 16, 2008

Respectfully submitted,

A handwritten signature in cursive script, appearing to read 'Edwin Flores', is written over a solid horizontal line.

Edwin S. Flores

Registration No. 38,453

ATTORNEY FOR APPLICANTS

Customer No. 34,725
CHALKER FLORES, LLP
2711 LBJ Freeway Suite 1036
Dallas, TX 75234
214.866.0001 Telephone
214.866.0010 Facsimile

ESF/SL